

## Instrument Design Overview

- Single detector with spectral range 700 to 3000 nm @ 10 nm
- Optional mode 400 to 3000 nm @ 10 nm
- 640 spatial elements
- Offner Spectrometer
  - High Signal-to-Noise ratio
  - High Uniformity
  - Simple
- All aluminum optics
- Single dual-blaze electron-beam grating
- Robust on-board calibrator
- Two cryo-cooler for redundancy
- Mass < 10 kg, Power < 13 W
- Easy accommodations on Chandrayaan-1
- Robust, high heritage

### Education/Public Outreach Objectives

*M<sup>3</sup> investigation provides unique opportunity to inform, engage and excite the public about the Moon and its exploration. Our plan is to:*

- Work with educators at U.S. Space & Rocket Center to refine our K-16 content
- Enhance the existing lunar curricula materials (eg., Exploring the Moon, Planetary Geology) that connect with the young STEM audiences
- Work with Program Evaluation and Research Group at Lesley University to maximize impact on users
- Enhance the National MoonBuggy Contest and Lunar Terrain project
- Model MoonViz after JPL's very successful MarsViz
- Develop virtual lunar classroom with Montana Univ.
- Work with OSS Support Network & working groups
- Involve minority institutions

### Management Overview

*The Brown University-based PI, Dr. Carle M. Pieters, will lead the project and have overall responsibility for project resources and mission success. JPL will support the PI with an experienced management and systems engineering team. All institutions and science team members are committed to providing the necessary resources, personnel and facilities to ensure mission success.*

## Schedule and Cost Overview

*The M<sup>3</sup> investigation schedule is driven by launch in September 2007. Operations, science analysis and E/PO activities will continue through 2010. Ample cost reserves, as well as schedule reserves are available to cover development and interface contingencies.*